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[54] HETERO-AROMATIC POLYMER CONTAINING FLUOROALKYL GROUP

[75] Inventors: Hideo Sawada, Tsukuba; Masaharu Nakayama, Tsuchiura, both of Japan

[73] Assignee: Nippon Oil and Fats Cp., Ltd.,

Tokyo, Japan

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Related U.S. Application Data

[63] Continuation of Ser. No. 582,178, Sep. 24, 1990, abandoned.

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[58]	Field of Search	528/377, 380, 401

[56] References Cited

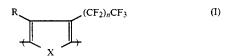
U.S. PATENT DOCUMENTS

4,711,742 12/1987 Jen 252/500

Primary Examiner—Christopher Henderson Attorney, Agent, or Firm—Darby & Darby

[57] ABSTRACT

A hetero-aromatic polymer containing a fluoroalkyl group is a novel polymer and has a polymerization degree of 5 to 5000, the polymer including the following structural unit represented by the general formula (I) of:



(wherein R stands for a hydrogen atom or an alkyl group having 1 to 25 carbon atoms, X stands for a sulfur atom, an imino or an oxygen atom, and n is an integer of from 1 to 9.)

2 Claims, No Drawings